

## magazine staff

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Special thanks to **Diane Hannemann** and **Ona Bloom** for their article on page 7. Thanks also to **Zoe Diamadi** for the photos on the same page.

### Your Opinion

B magazine seeks Op-Ed pieces from members of the BBS community. Please submit your column (maximum length 600 words) online or via the web.

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Op-Ed

## OPEN ACCESS: The Quiet Revolution in Scientific Publishing

By M. SERINGIUS

Subscription costs for academic journals have risen drastically over the past twenty years, and the sharpest increases have been in the areas of science, technology and medicine. According to a study by the Association of Research Libraries, academic institutions now spend three times as much as they did in 1986, for fewer serial titles. Publishers are free to increase prices in this manner because demand for their titles is largely inelastic: scientists don't normally consider journal pricing when deciding where to submit their work, and competition is all but nonexistent— if you need an article published in *Cell*, a subscription to *Nature* is of no use. Schools and libraries must buy any journal their researchers require; and some publishers exploit this fact by hiking prices to unreasonable levels.

These price increases are troubling for two reasons.

The most grievous problem is the inability of the taxpaying public to access the bulk of the research they finance. True open access to the literature would bring authoritative, peer-reviewed science to any interested patient, student or physician in America and beyond. This is a crucial issue and one deserving of discussion, but falls beyond the scope of this commentary.

Second – and of most immediate interest to the scientific community – rising costs threaten our own access to the literature. Remember the boycott of Cell Press, initiated last fall by two UCSF scientists? The prohibitive fees charged by publishing giant Elsevier left researchers at one UC campus without electronic access to Cell Press journals. Peter Walter and Keith Yamamoto implored fellow scientists to shun Cell Press journals, resign from their editorial boards and direct manuscripts elsewhere. The e-mail campaign was effective in speeding negotiations to restore e-access to the affected UC campus; though since *Cell* continues to flourish, it's safe to assume the embargo did no more to Elsevier than perhaps bruise its pride. What it did do, however, was shine the harsh spotlight of public interest on the academic publishing system; and this fifteen min-

utes of fame was about fourteen more than its opponents needed to make the case for open access into a national debate.

By now, you've probably heard of *PLoS Biology*, the landmark open access journal published online by the Public Library of Science. Publishing in a *PLoS* journal comes at a price of \$1500 per paper, paid by authors and covering publishing expenses; all access to your work thereafter is free. Another open access publisher, BioMed Central (BMC), maintains over one hundred open access titles with publishing costs ranging from \$525 to over \$1000. This cost to publish is widely cited by opponents of open access as a major failing of the system.

It isn't. Publication is a logical and final step of academic inquiry – without it, the importance and impact of research is sharply constrained. Publication costs should be paid from grant monies, covered like any other cost of research. Furthermore, a significant number of traditional journals now charge publication fees anyway; for instance, the average *PNAS* author spends \$1700 on page and color charges. The cost of publishing a ten-page paper in *Nucleic Acids Research*, *EMBO Journal*, *Molecular & Cellular Biology*, *Journal of Biological Chemistry*, *Genetics*, or *Genes and Development* ranges from \$200 to nearly \$1000 – and readers must still pay to access. (*PNAS* does offer an option wherein you can 'upgrade' your article to open access for a \$1000 surcharge, bringing their fee closer to \$2700 per paper.) The upshot is simple: we're paying to publish either way, so why tax readers, too?

The straightforward answer is that traditional journals carry the cachet, the prestige: publishing in 'impact' titles like *Nature*, *Science* or *Cell* is still considered by many to be a career-making achievement. The citation index of fledgling journals can't yet compete with the old guard, and tenure review boards are unlikely to be bowled over by your Meisterstück in *BMC Bioinformatics*. But make no mistake: open access journals enjoy significant support from prominent scientists, publish good work,

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*OPENACCESS continued from page 2*

and are taken seriously. Open access is not the brainchild of some tree-hugging idealists, but the work of powerhouse scientists, regarded as an issue of import in the highest channels. Indeed, the U.S. government now stands poised to regulate free public access to NIH-funded research through PubMed Central. Watch for developments in early 2005.

The purpose of academic publishing is to record and disseminate scientific results, not to jewel the editor's crown or line the pockets of corporate giants. Before you submit your next article, consider who benefits from the current publishing scheme and who suffers. Take a moment to examine the journals you're favoring with your work—explore their policies on author archiving and open access. Scrutinize their fees. Are they a non-profit organization? And here's a good one—if they're a corporate publisher, check their stock rating. "High buy" means high profit, inexcusable in this publicly funded field.

And here's something you might not know: Yale already has institutional publishing agreements with both PLoS and BioMed Central. This means that Yale corresponding authors can publish in PLoS journals at a 50% discount, and publish in any of BMC's \$525 journals completely free of charge. It's true, I asked the librarians; all the more reason to do the right thing.

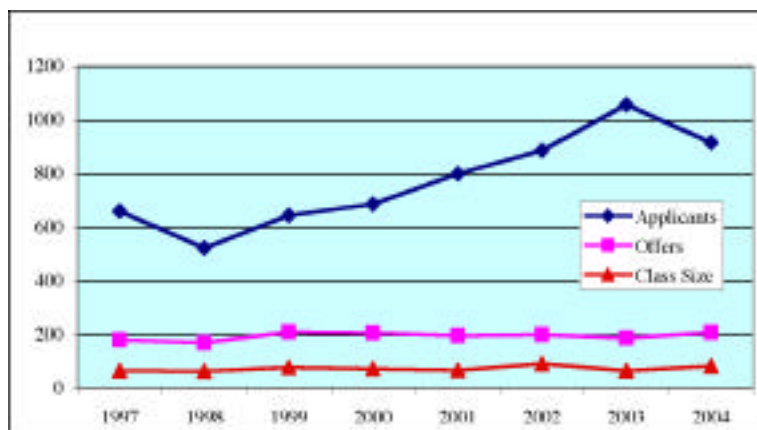
Submit your next paper to an open access journal. It's important, conceptually and practically, for all of us to support the movement toward free and open scientific literature. ♣

*Recruits continued from page 1*

the first year students is 24 and ranges from 21 to 31. The baby of the class was born in June of 1983!! With 38 females and 42 males, the girls have a slight dating advantage. The most common astrological signs are Capricorn and Leo, so if you're into that kind of thing, the incoming class is comprised of several individuals who are cautious, steadfast and reserved (Capricorn), and others who are will-

accomplished, with 12 master's degrees, 3 MDs, and something called a BA. Among them. The average GPA is higher than recent years' at 3.69 (don't worry, seasoned B readers, we're sure it's just grade inflation).

So, when you're hanging out at GYPCY and the girl you're talking to says that she's a first year Physiology and Integrative Medical Biology student, a Libra, and from



**BBS admissions figures since the inception of the Program**

ful and strong minded (Leo).

The new students are also a smart bunch. With a combined GRE of over 2050, the B staff is guessing that they're great conversationalists in addition to being good at math and quite analytical. They're also very

Liechtenstein, you'll know that she's lying and doesn't really want to be talking to you. Sadly nobody from Liechtenstein enrolled this year. But there's always the class of 2112. ♣



All of the first year Neuroscience students at their welcoming picnic at Lighthouse Point. Photo courtesy of J. Warner.